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United States Department of Agriculture

ALLEGHENY FOREST EXPERIMENT STATION

Technical Note No. 31
Forest ServicePhiladelphia, Pa.
June 24, 1941PULPWOOD PIECE CUTTERS PROFIT BY
SELECTIVE CUTTING 2.2

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Cutting small sized trees for pulpwood is wasteful to the wood cutter, the pulp company and the forest. These facts were demonstrated by a study carried out by the U. S. Forest Service on operations of the Armstrong Forest Company of Johnsonburg, Pennsylvania, for the purpose of determining whether or not selective cutting caused hardship to piece cutters. Each of 3 crews of cutters were assigned two sets of 3 plots to be cut to 5, 8, and 11-inch diameter limits in a 43-year old hardwood stand containing trees up to 17 inches in diameter. The time required for the various operations was accurately recorded. Though the workers were actually paid on an hourly basis while engaged in this study the results shown in the table are computed for piece work that is the standard practice in the region. Workers were obliged to cut more than 5 times as many small as large trees to make a cord, and in doing so they earned \$8.32 less per week for themselves. At the same time they increased the cost of pulpwood in the woods to the company by 18% due to the fact that ranks of small sticks have less cubic volume than those of large ones.

	:	:	Conversion Time Per Cord			:	:		
Tree	:	Trees:	Felling,:	Bucking,:	:	1/	Labor Cost 1/		
Diameter:	per	:	Limbing,:	Splitting:	Total	:	Weekly	:	per 100
Groups	:	Cord	:	Peeling	:	Piling	:	Earnings:	Cubic Feet
Inches	Number	Man-hours	Man-hours	Man-hours	Dollars		Dollars		
5.0- 7.9	23	8.7	6.8	15.5	13.55		4.21		
8.0-10.9	9	4.7	4.9	9.6	21.87		3.85		
11.0-17.0	4	4.3	5.3	9.6	21.87		3.58		

1/ Based on a 56-hour week allowed by the Wages and Hours Division during the peeling season, and \$3.75 per 52" cord.

The study may best be summed up by saying that a cutter can produce 1.9 times as much solid pulpwood per day from trees 11 inches and larger as from trees 5 to 8 inches in diameter. By leaving these small trees to grow, he can return for a second cut approximately 20 years sooner than to heavily cut areas and thereby apply his efforts chiefly to those tree sizes that pay him and his employer the greatest returns.

*In cooperation with the University of Pennsylvania.

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